

REMARKS

The Examiner's Action mailed on July 13, 2007, has been received and its contents carefully considered.

In this Amendment, Applicants have added new claims 28-31. Claims 1, 7, 13 and 28 are the independent claims, and claims 1-31 are pending in the application. For at least the following reasons, it is submitted that this application is in condition for allowance.

Claims 1-22 and 27 were rejected under 35 USC 102(b) as anticipated by *Nishimura et al.* (US 2001/0026512 A1). This rejection is respectfully traversed.

Applicant respectfully notes that: "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Independent claim 1 recites "A method for generating a wobble signal of an optical-electronic system, comprising: generating a reference signal in response to a first input signal and a second input signal that are derived from a plurality of light signals reflected from an optical storage medium, *wherein the plurality of reflected light signals are used for generating the reference signal even when the optical-electronic system is recording data onto the optical storage medium*; and processing the reference signal to generate the wobble signal" (*emphasis added*).

Independent claim 7 recites "A method for generating a wobble signal of an optical-electronic system, comprising: generating a reference signal by attenuating a first input signal and a second input signal that are derived from a plurality of continuous light signals reflected from an optical storage medium; and processing the reference signal to generate the wobble signal, *wherein the plurality of continuously reflected light signals is used to derive the first input signal and the second input signal for generating the reference signal even when the optical-electronic system is recording data onto the optical storage medium*" (emphasis added).

Independent claim 13 recites "A wobble signal generating apparatus of an optical-electronic system, comprising: a first operation unit for generating a reference signal in response to a first input signal and a second input signal that are derived from a plurality of light signals reflected from an optical storage medium, *wherein the plurality of reflected light signals are used for generating the reference signal even when the optical-electronic system is recording data onto the optical storage medium*; and a processing unit for processing the reference signal to generate the wobble signal" (emphasis added).

Nishimura et al. fails to teach or suggest the feature that "the plurality of reflected light signals are used for generating the reference signal even when the optical-electronic system is recording data onto the optical storage medium" as recited in independent claims 1, 7 and 13.

The Office action deems that *Nishimura et al.* discloses the above feature

in the Abstract thereof, which reads as follows:

The present invention has an object to stably reproduce wobble signals of all disks of CD-R/RW, DVD-R/RW and DVD-RAM by one wobble signal reproducing circuit. In the wobble signal reproducing circuit, an AGC (AUTOMATIC GAIN CONTROL) circuit *for equating a push-pull circuit output of a wide range and an RF amplitude of an optical detector output of two systems obtained by push-pull*, and an AGC (AUTOMATIC GAIN CONTROL) circuit *for making a wobble amplitude uniform* are provided with a function to hold a gain or to change over a response time constant, and at the time of reproduction of the DVD-R/RW, a land pre-pit region is detected by the push-pull output to hold AGC (AUTOMATIC GAIN CONTROL) or change over a response time constant. Besides, in an address information recording region (PID region) at the time of reproduction of the DVD-RAM, the AGC (AUTOMATIC GAIN CONTROL) is held or the response time constant is changed over. Further, in the band pass filter for extracting a wobble frequency, there is provided a function of making a pass band substantially proportional to a clock input, and a function of changing over a proportionality coefficient between the pass band and a clock frequency in the CD-R/RW, DVD-R/RW and DVD-RAM.

(emphasis added)

However, the above Abstract of *Nishimura et al.* discloses an AGC circuit “for equating a push-pull circuit output of a wide range and an RF amplitude of an optical detector output of two systems obtained by push-pull” and “for making a wobble amplitude uniform are provided with a function to hold a gain or to change over a response time constant” (sic).

More specifically, the Abstract of *Nishimura et al.* discloses the control of AGC, but provides no information concerning “the plurality of reflected light signals are used for generating the reference signal even when the optical-electronic system is recording data onto the optical storage medium”.

For at least this reason, claims 1, 7 and 13 are allowable over *Nishimura et al.* Insofar as claims 1, 7 and 13 are allowable, claims 2-6, 8-12 and 14-27,

which depend from claims 1, 7 and 13 respectively, are also allowable.

Claim 4 recites the method for generating a wobble signal as claimed in claims 1 and 3, further comprising a step of “amplifying the reference signal before being the reference signal processed for generating the wobble signal”.

Claim 27 recites the wobble signal generating apparatus as claimed in claims 13, 22 and 23, further comprising an amplifier coupled between the first operation unit and the processing unit for “amplifying the reference signal before being the reference signal processed for generating the wobble signal”.

Nishimura et al. also fails to teach or suggest the limitation of “amplifying the reference signal before being the reference signal processed for generating the wobble signal” as recited in claims 4 and 27.

The Office Action deems that *Nishimura et al.* discloses the limitations of amplifying the reference signal before being processed for generating the wobble signal by high band pass filters 113 and 114. However, it is known in the art that band pass filters perform the operations of passing frequencies within a certain range and *attenuating* frequencies outside that range, not the operation of amplifying the signal. Thus, *Nishimura et al.* cannot teach or suggest the limitation of “amplifying the reference signal before being the reference signal processed for generating the wobble signal” by using high band pass filters 113 and 114.

For this reason alone, Applicant believes that claims 4 and 27 are allowable over *Nishimura et al.*

Claim 10 recites the method for generating a wobble signal as claimed in claims 7 and 9, further comprising a step of "*amplifying the reference signal* before the first input signal and the second input signal being processed for generating the wobble signal". Claim 10 is allowable for at least the same reason given above with respect to claims 4 and 27.

Claim 6 recites the method for generating a wobble signal as claimed in claims 1 and 5, and further recites the feature that "the factor is a substantial ratio of resistances that are used for attenuating the first input signal and the second input signal".

Claim 12 recites the method for generating a wobble signal as claimed in claims 7 and 11, and further recites the feature that "the factor is a substantial ratio of resistances that are used for attenuating the first input signal and the second input signal".

Claim 17 recites the wobble signal generating apparatus as claimed in claims 13 and 16, and further recites the feature that "the factor is a substantial ratio of resistances that are used for attenuating the first input signal and the second input signal".

Nishimura et al. fails to teach or suggest the feature that "the factor is a substantial ratio of resistances that are used for attenuating the first input signal and the second input signal" as recited in claims 6, 12 and 17.

Although *Nishimura et al.* discloses that the elements **111-114** use resistors to alter the signal, *Nishimura et al.* does not, however, teach or suggest

that “the reference signal is substantially a multiplication of a factor and a difference between the first input signal and the second input signal” and “the factor is a substantial ratio of resistances that are used for attenuating the first input signal and the second input signal”.

For at least these reasons, Applicant believes that claims 6, 12 and 17 are allowable over the cited reference.

Claims 1-22 and 27 therefore patentably define over *Nishimura et al.*, and are allowable.

Claims 23-26 were rejected under 35 USC 103(a) as being obvious solely over *Nishimura et al.* This rejection is respectfully traversed.

Claims 23-26 depend from claim 22, and are allowable for at least the reasons that claim 22 is allowable.

New independent claim 28 recites “A wobble signal generating apparatus of an optical-electronic system, comprising: a first operation circuit continuously generating a first input signal according to a first light signal and a fourth light signal reflected from an optical storage medium, wherein the first operation circuit comprises: a first operational amplifier having a first grounding non-inverting terminal, a first inverting terminal, and a first output terminal; a first resistor coupled to the first inverting terminal and receiving the first light signal; a second resistor coupled to the first inverting terminal and receiving the fourth light signal; and a third resistor coupled between the first inverting terminal and the first output terminal; a second operation circuit continuously generating a second

input signal according to a second light signal and a third light signal reflected from the optical storage medium, wherein the second operation circuit comprises: a second operational amplifier having a second grounding non-inverting terminal, a second inverting terminal, and a second output terminal; a fourth resistor coupled to the second inverting terminal and receiving the second light signal; a fifth resistor coupled to the second inverting terminal and receiving the third light signal; and a sixth resistor coupled between the second inverting terminal and the second output terminal; a third operation circuit continuously generating a reference signal according to the first input signal and the second input signal, wherein the third operation circuit comprises: a third operational amplifier having a third non-inverting terminal, a third inverting terminal, and a third output terminal; a seventh resistor coupled between the first output terminal and the third inverting terminal, and receiving the first input signal; an eighth resistor coupled between the second output terminal and the third non-inverting terminal, and receiving the second input signal; and a ninth resistor coupled between the third inverting terminal and the third output terminal; and a processing unit for processing the reference signal to generate the wobble signal ", and new claims 29-31 depend therefrom.

Applicant believes that it is clear that the features of claim 28 are not taught or suggested by *Nishimura et al.* Claim 28 is therefore allowable, together with claims 29-31 that depend therefrom.


It is submitted that this application is in condition for allowance. Such action and the passing of this case to issue are requested.

Should the Examiner feel that a conference would help to expedite the prosecution of this application, the Examiner is hereby invited to contact the undersigned counsel to arrange for such an interview.

Should any fee be required, however, the Commissioner is hereby authorized to charge the fee to our Deposit Account No. 18-0002, and advise us accordingly.

Respectfully submitted,

October 10, 2007
Date



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